



**New Partnership for
Africa's Development (NEPAD)
Comprehensive Africa Agriculture
Development Programme (CAADP)**



**Food and Agriculture Organization
of the United Nations
Investment Centre Division**

GOVERNMENT OF THE KINGDOM OF LESOTHO

SUPPORT TO NEPAD–CAADP IMPLEMENTATION

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Volume IV of V

BANKABLE INVESTMENT PROJECT PROFILE

Livestock Development Project

February 2005

LESOTHO: Support to NEPAD–CAADP Implementation

Volume I: National Medium–Term Investment Programme (NMTIP)

Bankable Investment Project Profiles (BIPPs)

Volume II: Crop Production: Small–scale Irrigation Development Project

Volume III: Conservation and Land Improvement Project

Volume IV: Livestock Production Project

Volume V: Support Services Programme

NEPAD–CAADP BANKABLE INVESTMENT PROJECT PROFILE

Country: Lesotho

Sector of Activities: Livestock production

Proposed Project Name: **Livestock Development Project**

Project Area: Northern Districts – Maseru, Berea, Leribe and Botha Buthe

Duration of Project: 5 years

Estimated Cost: Foreign Exchange US\$12.05 million
Local Cost..... US\$9.22 million
Total US\$21.27 million

Suggested Financing:

<i>Source</i>	<i>US\$ million</i>	<i>% of total</i>
<i>Government</i>	4.3	20
<i>Financing institution(s)</i>	12.8	60
<i>Beneficiaries</i>	2.1	10
<i>Private sector</i>	2.1	10
<i>Total</i>	<i>21.3</i>	<i>100</i>

LESOTHO:
NEPAD–CAADP Bankable Investment Project Profile
“Livestock Development Project”

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Abbreviations

AgSeSt	Agriculture Sector Strategy
ARC	Agricultural Resource Centre
CAADP	Comprehensive Africa Agriculture Development Programme
DLS	Department of Livestock
GDP	Gross Domestic Product
LIC	Livestock Improvement Centre
MAFS	Ministry of Agriculture and Food Security
NEPAD	New Partnership for Africa’s Development
NMTIP	National Medium–Term Investment Programme
RSA	Republic of South Africa
PRSP	Poverty Reduction Strategy Paper
TA	Technical Assistance/Assistant
UES	Unified Extension System

I. PROJECT BACKGROUND

A. Project Origin

I.1. The *National Vision for Lesotho (Vision 2020)* makes food security and poverty reduction, along with sustainable resource management, the main priorities of Government. This places Agriculture at the forefront of all other sectors in championing the way forward to achieving the objectives of food security and poverty reduction.

I.2. This project originates from a process that involved the review of the *Agricultural Sector Strategy framework (AgSeSt)*, the *Poverty Reduction Strategy Paper (PRSP)*, and the draft *National Vision 2020*. It also incorporates the *District Extension Strategies* on livestock production. The *Department of Livestock (DLS)* in the *Ministry of Agriculture and Food Security (MAFS)* will play a pivotal role with its contribution in the realisation of food security and poverty reduction objectives.

I.3. An improvement in the quality of livestock production at sub-sector level has been identified as one important instrument by which food security and poverty reduction objectives could be attained. The importance of this strategy is that most of the rural population depend on agriculture as the main source of livelihoods, and is found at the Foothills and Mountain areas of Lesotho that are more suitable for extensive livestock farming. This project is therefore targeting the right population in addressing the situation of food security and poverty reduction. The objectives of AgSeSt priority goals of food security and poverty reduction, are also recognised as pillars for priority investment by NEPAD/CAADP.

B. General Information

(i) *The Agriculture Sector*

I.4. Lesotho is a small mountainous, landlocked country with a population of about 2.2 million¹ the majority of whose livelihoods depend on agriculture. It is not surprising therefore that half of all households in the country own livestock.² The importance and significance of livestock in the livelihoods of Basotho stems from the uses of livestock in food security and poverty reduction. Cattle in particular perform important traditional functions in Lesotho. In addition to generating income, supplying households with milk, meat and draught power, the number of livestock owned often has a significance which is separate from economic yield. A rural household survey³ by main sources of income showed the following results: subsistence agriculture 46 percent, cash crops 7.7 percent, livestock 7 percent, crop and livestock 2.1 percent, crop and remittances 0.6 percent, remittances 16 percent and others 20.6 percent.

I.5. Notwithstanding constraints of available land for crop production and degraded, eroded and poor range management systems in the country, livestock and crops have contributed 17.3 percent to Gross Domestic Product (GDP) of which 10.9 percent was crop production, 5.8 percent livestock and 0.6 percent agricultural services. No doubt the sector has been performing far below its potential and will continue to do so unless measures to improve the situation are taken. Output in crop production has been showing a downward trend in yields due to poor soil fertility, poor distribution and inefficient use of inputs. In the livestock sub-sector, especially the subsistence farmers face the challenge to improve the presently poor range management practices, lack of skills in husbandry and

¹ 1996 National Census statistics.

² Agricultural Sector Strategy, August 2003.

³ 1999/2000 Agriculture Census.

animal health care. These deficiencies among other things are responsible for the poor performance as reflected in the 2002 GDP.

(ii) *The Livestock Sub-sector*

I.6. Livestock farming is one of the most traditional practices of Basotho occupations. It is based on the favourable ecological conditions in the country, particularly the large area covered by the Foothills and the Mountains that is best suited for extensive livestock. This sub-sector comprises of animal production and animal health. Currently livestock production contributes 5.8 percent of the total contribution of Agricultural sector into the GDP, and 80 percent of that contribution is from extensive livestock production. The AgSeSt divides this sub-sector into two farming practices of *extensive livestock production* and *intensive livestock production* practices. In order to attain food security and reduce poverty in the country, the AgSeSt plans to increase the contribution of livestock by improving the quality of output.

(iii) *Extensive Livestock Production*

I.7. The extensive livestock population comprises cattle with a population of 732,403, sheep 1,102,751, goats 832,462, horses 97,047 and donkeys 187,404. Extensive livestock production is a low input low output type of farming practice largely found in the Foothills and Mountains of the country.

I.8. **Cattle.** The important functions played by cattle in this country have a great impact on the productivity. Cultural attitudes give more importance to the number of cattle than to quality of animal products. In most cases, particularly in the rural areas very little is done to supplement the ever declining range land with forage and feed supplement to increase animal productivity. Besides the social functions, most farmers in the Foothills and Mountains keep cattle for beef production, but the oxen mainly are sold only when they are old and no longer useful for draught power and these are mainly of indigenous breed. It is estimated that out of this population of 732,403, only 10 percent are considered improved breeds. This is why beef industry in Lesotho is currently not a viable enterprise. Over the years government has encouraged introduction of exotic breeds for upgrading the local herd through *Livestock Improvement Centres* (LIC). This was primarily meant to improve the beef market. 3 percent or about 21,972 lactating cows of local breed only produced 2 litres per cow per day and 1 percent of cattle population kept for beef. It is hoped that the impact of this project will change the attitudes of the livestock farmers to consider the economic benefit as one priority area. In this way it will be easy to promote improved husbandry practices, improvement of range management as well as conservation of forage for their nutrition.

I.9. Conservation of forage at present is a problem because farmers are reluctant to grow fodder to supplement the pastures. The problem is further compounded by the high prices of fodder and supplementary feed imported from South Africa. The constraints to fodder growing comprise the weak land tenure rights that make it difficult for farmers to utilise more land for fodder production, scarcity of arable land leading to competition with crops and danger of theft and grazing of fodder by delinquent herd boys. Land tenure policy reforms, *Anti Theft Act* enforcement and improved range management strategies embodied in the AgSeSt will hopefully assist in solving some of these problems.

I.10. **Sheep and Goats.** The population of small stock has been declining in recent years and this has affected the production of wool and mohair in the country. High population of sheep and goats are concentrated in the highland areas, the Foothills and Mountain regions. 82 percent and 76 percent of sheep and goats respectively are found in the Foothills and Mountains while 18 percent and 24 percent

are found in the lowlands. Small stock is kept mainly for its wool and mohair that is sold in the highly competitive auction market. The competitiveness of the Lesotho wool and mohair fibre is declining annually and this is a great concern for farmers and the country. In the 2001/2002 report, the value of wool had increased from M7,000 to M10,000 per tonne while that of mohair had also increased from M14,000 to M18,000 per tonne respectively. There are wool and mohair sheds built around the country, but most of them are in a poor state requiring rehabilitation and upgrading to build new other facilities with improved equipment like shearing machines. There is need to improve the quality of wool and mohair. Wool and mohair production is currently at 2,345 and 66 metric tonnes respectively and the ASS would like to increase output by 10 percent

I.11. **Equines:** The equine livestock comprise the horses, a small proportion of mules (negligible number to be censored) and donkeys with populations of 97,047 and 187,404 respectively. Horses are mainly used for transport while donkeys transport heavy goods especially in the rural country side. The donkey is sometimes used for draught power though not very common in Lesotho. A very small number of horses is kept for racing and a special breed called the Basotho pony kept for its economic value.

(iv) *Intensive Livestock Production*

I.12. In order to achieve the objective of food security and poverty reduction, the DLS has designed a programme to improve the quality output of intensive livestock production. This farming practice comprise animal groups like dairy cows of which the common breeds are Jerseys, Friesians and the Brown Swiss, poultry, piggery, fish and ducks as well as the Basotho pony. There are about 4,500 dairy cows in the country but only 3 percent of the milk produced goes through the formal market and is processed at the only plant in Maseru. Government is on a campaign to encourage farmers to grow fodder on commercial basis. This is hoped to reduce the burden of importing fodder from RSA.

I.13. The dairy facilities in the project area will be improved and upgraded to promote dairy farming. Poultry is the most common intensive or commercial livestock production enterprise done in this group. The ducks and fish are non-traditional and it will take some time for the nation to participate fully in their output. A heavy investment in infrastructure and facilities is required to sustain the intensive livestock production. For this reason, farmers need some financial assistance of some kind while at the same time basic infrastructure and facilities will still need government intervention. In promoting this initiative, the project will be expected to create the basic infrastructure and facilities.

II. PROJECT AREA

II.1. **Topography, Climate and Soils.** This project is part of a national programme that covers the 10 districts of the country and will pay particular attention to the four districts of Maseru in the central, Berea, Leribe and Botha Bothe in the north. It covers an area of 1,111,805 hectares that is divided into three agro ecological zones that define the soil structure and suitability to agriculture. Of these three zones (Lowlands, Foothills and the Mountains) making the project area, only 16 percent or 181,729 is arable land while over 60 percent of the remaining 930,076 comprise the Foothills and Mountain range land. The Lowlands cover 444,722 hectares or 40 percent of the area with a flat to gentle rolling topography at an altitude of less than 1,800 m above sea level. Generally the Lowland soils have a deep to moderately rapid permeability with very limited rangeland. The climate is moist in the north becoming moderately dry in the south, the two being exposed to parching sun, strong winter winds,

hail, drought and high soil erosion. Rainfall is moderate with an average of 755 mm. The area is characterised by hot summer temperatures registering between 22 and 31°C. Sunshine throughout the year fluctuates between 6.6 to a maximum of 10.3 hours. The vegetation is stable with reforestation on some hills and fruit trees near homesteads. Intensive farming for commercial farmers is found in many places of the lowlands and very little or no extensive livestock farming prominent.

II.2. The Foothills cover an area of 344,660 hectares or 31 percent of which only 59,365 ha is suitable for crop production, with a bigger portion of the remaining 69 percent being occupied by range land. It is located at an altitude of between 1,800 m and 2,000 m a.s.l., steeply rolling with very rich alluvial soils along the valleys, thin and thick rock on slopes. Though the soils are rich and fairly suited for farming, they are susceptible to erosion and intensive conservation practises to avoid loss are recommended but are suitable for pastures to graze the livestock. The area enjoys a moist and sheltered climate with the risk of floods during rainy periods and the soils have a high erodability posing a high risk to the degraded rangeland. The vegetation is stable for crop production and fruit trees near homestead and is characterised by poplar and willow trees along the streams and gullies. Sheep and cattle are found in large numbers as compared to goats. The soils are good for growing fodder as supplement to the nutrition of the animals.

II.3. The Mountains or highland area is known for its steep bare rock, outcrops and gentle rolling valleys located at an altitude of between 2,000 m and 3,250 m making the largest range land for livestock farmers. At least 80 percent or 153,200 ha of range land is available for livestock. The soil in this part of the country is very fragile with thin horizon of rich black loam except in the valley bottoms. The climate is very cold and moist with long periods of frost, snow and hail that put livestock farming at risk. The vegetation is characterised by denuded grassland, indigenous shrubs in some rivers and valleys that are very good for goats especially. Notwithstanding limited arable land, the area is suited for fodder and farmers can take advantage of this opportunity.

II.4. **Population.** The total population of the project area is 937,400 people which is 42 percent of the national population. This is made up of the rural poor subsistence farmers who constitute the majority, and these are the people who hold over 90 percent of the arable land and 80 percent of the livestock. The total population makes 224,105 families of whom 153,617 or 68 percent are involved in agricultural activity. Government of Lesotho is creating an enabling environment through incentives in the form of subsidies to promote livestock by encouraging farmers to allocate more land for fodder growing. The *Department of Field Services* through the *Unified Extension Systems (UES)* will engage in intensive mobilisation and sensitisation of the farming community to try this new initiative.

II.5. **Agriculture.** For a long time agricultural practices in the country have been based on individual choices and tradition regarding livestock breeds, husbandry and general farm management. It was not possible to enforce international standard practices and systems of quality control because of the nature of this practice. No doubt this affected the quality output of livestock in the country. Studies today have divided geographic areas according to agro ecological zones in order to improve production performance based on those areas that have the best and most suitable conditions. The indigenous cattle are best suited in the Lowlands and the Foothills while the Lowlands and the Mountains have a high potential for small stock. Intensive livestock farming is expected to perform well in the Lowlands particularly because it requires close monitoring and care on a full time basis which rural people would not have time for.

II.6. Farming systems include subsistence farming that is dependant on natural range land used for pastures, and the intensive or commercial farming that requires full time monitoring and management. Subsistence farming on one hand is primarily aimed at producing for the homestead food security and poverty reduction generally on a low-input low-output basis. Intensive or

commercial farming on the other hand is market or business oriented. Of the 732,403 national cattle herd, only 4,500 were dairy cows and this makes 0.614 percent leaving 99 percent to extensive farming. Sheep and goat farmers practice extensive farming with a negligible number of sheep kept by butchers for mutton. About 80 percent of staple food production is from subsistence farming, maize being the number one staple crop produced along with sorghum, beans, peas and wheat. Intensive or commercial livestock are mostly found in the Lowlands. The common livestock kept for commercial purposes are the poultry, piggery and dairy. There is new interest developing for fisheries and ducks as well as rabbits and bees although a lot still remains to be done to motivate farmers’ interest. Marketing is a major constraint to many farmers the main problem being lack of marketing infrastructure and facilities. Sometimes produce fails to reach the consumer just because there is lack of information about its availability, or access through bad road networks is impossible.

II.7. **Infrastructure.** Infrastructure plays an important role in the promotion of agriculture in this country. The topography is characterised by hills, mountains, rough and rocky terrain. The road network system around the country is not good and access to the farms is difficult. A few facilities built around the country to service livestock e.g. veterinary clinics, resource centre livestock improvement centres are hardly equipped with utilities like electricity and telephones. Service without these basic facilities makes agriculture an expensive and risky undertaking. There is need to put in place an infrastructure that will assist farmers to increase their output. The project will invest in the following:

- Rehabilitation, upgrading and new creation additional facilities to support and promote livestock farming;
- Range management and conservation facilities to preserve and rehabilitate arable land;
- Creation of marketing infrastructure; and
- Mechanisation to facilitate use of technology to meet high quality standards.

III. PROJECT RATIONALE

III.1. **Training and Capacity Building.** The implementation process of this project ensures that participating farmers including the community around the farming area are empowered with agro technical skills, management and leadership skills and competencies. Development of the capacity of farmers and the community will minimise the risk of disease outbreaks, maintenance and repairs of facilities, use of recommended husbandry practices including ensuring that quality control and other international standards of good practice are kept. The UES extension philosophy is using participatory decision making technique that entrenches self confidence and independence. This project will build the capacity and capabilities of farmers’ associations and individual farmers to be able to solve common problems with very little assistance from extension teams.

III.2. **Improved Quality Output.** One of the major concerns of the MAFS is the high level of poverty and food insecurity. Through improving the quality of livestock production in the country, household incomes will increase, indigenous dairy cattle which produced 2 litres of milk per cow per day will increase output for household consumption. In the same token, quality livestock products will have a better economic value in the competitive market economy.

III.3. **Promotion of Commercial Livestock.** Commercial livestock is a very risky and difficult enterprise in this country. There are many constraints that discourage farmers to enter into this type of

business. It is a capital intensive business and access to finance is a problem for many aspiring farmers. Limited arable land makes it hard for farmers to have more land on which to grow fodder that is a priority for dairy and beef farmers. This project among other things will undertake research studies for a variety of purposes to improve commercial farming. But the main constraint of access to finance will be addressed by developing a suitable credit scheme for commercial farmers. In this way, farmers will have the benefit of utilising the opportunities of mechanisation and have improved technology in increasing milk output, fibre length of wool and mohair etc.

III.4. ***Exploring Opportunities and Potential in Livestock Products.*** The reason why there are no viable agro–enterprises in this country is that little has been done to research their potential. With the improved production of wool and mohair, cattle, dairy, poultry and piggery, agro industry e.g. wool and mohair scouring, shoe making, leather tanning and many more will be explored.

IV. PROJECT OBJECTIVES

IV.1. The ***primary objective*** of this project is to improve the quality output of livestock production by 10 percent p.a. to increase the contribution of agriculture in food security and poverty reduction. Livestock production is sub–divided into two key areas of *Animal Production* and *Animal Health*, which will achieve the following specific objectives:

IV.2. ***Animal Production:***

- Encouraging intensive livestock production by motivating farmers to grow fodder and revising the regulations to encourage the practice of feed–lotting.
- Reducing stock theft by developing a database for registering and marking livestock in accordance with Livestock Theft Act and establishing anti theft community associations.
- Improving the quality of extensive livestock production in the Foothills and Mountains through range management practices and establishing sustainable stocking rates.
- Improving animal husbandry in all key animal groups by privatising the distribution services for input supplies, disease control and improving animal nutrition.
- Improving the genetic quality of animals by purchasing quality breed animals and also improving the local breed practices.
- Promoting commercialisation of livestock farming by improving marketing practices for export and domestic market products and motivating farmers to commercialise cattle production in particular. Very few Basotho have a commercial attitude towards keeping cattle because of the importance of its social functions.
- Expanding the use of animal products in other sectors by encouraging the establishment of agro industry enterprises.
- Developing commercial potential of non traditional animals by conducting research and feasibility studies to explore the potential for non traditional animal groups like the fish, ducks rabbits and bees.

IV.3. ***Animal Health:***

- Improving the capacity of communities to carry out basic health care operations by establishing networks of community animal health workers, training farmers on how to manage their dip tanks and to establish dip tanks as focus for community animal health activities.
- Establishing and implementing legislation for control of disease and veterinary services by harmonising and aligning with international standards the legislation on animal health.
- Implementing the improved control of veterinary services by improving the surveillance and control of diseases and monitoring of imports and exports of livestock and livestock products.
- Improving access to veterinary drugs by training local traders and farmers associations to dispense and distribute drugs.
- To privatise animal health services by finalising the details of services to be carried out To restructure the animal health services in the public sector by streamlining roles and responsibilities for each stakeholder.
- To ensure that all meat sold for human consumption is healthy and wholesome by improving the inspection service at the national and municipal abattoirs.

V. **PROJECT DESCRIPTION**

A. **Implementation Strategy**

V.1. It is the responsibility of the Ministry of Agriculture to ensure that the country produces enough food for its citizens and reduces the high level of poverty by implementing a strategy that distributes meagre resources within the country equitably. The ASS has therefore prioritised the two objectives of food security and poverty reduction in its implementation, the two objectives also being considered to be the NEPAD–CAADP Pillars for priority investment.

V.2. The level of food production in the country has been experiencing annual decline due to a number of reasons among which efficient utilisation of inputs for production has been a problem. 80 percent of the limited arable land is in the hands of the rural poor who also own more livestock as their only means of livelihood. Their farming practices are traditional mainly based on subsistence crop production and extensive livestock farming with less than 20 percent of the farmers engaged in commercial farming. It is not surprising therefore that this low–input low–output method of farming is not able to produce enough food neither is it able to reduce the level of poverty in the country. Achievement of food security and poverty reduction goals is a long term process. The short to medium term strategy of the Department of Livestock is to increase its productivity by improving the contribution of its output in the various sections of the sub–sector by 10 percent p.a. This strategy requires full participation by the farming community, commitment and effectiveness by the *Department of Field Services* through its UES, good co–ordination of all activities and continuous monitoring and evaluation of the programme.

V.3. This project is a continuation of that strategy and is to be implemented over the next 5 years. In order to increase output there is need to create a conducive environment to prepare for smooth implementation. Over the next 5 years, this project will implement a strategy that will increase the

output of livestock by 10 percent p.a. The implementation strategy comprises two components, i.e. *Animal Production* and *Animal Health*. The implementation activities will involve the following key areas of operation:

B. Key Areas of Operation/Project Components

Component 1: Animal Production

V.4. ***Range Management.*** The range area measuring about 1,112 ha of land that is degraded with badly deteriorated condition of vegetation will be identified for re-seeding. Farmers associations together with the community will be mobilised to undertake the task of re-seeding the area. Over 330 bags of 50 kg seed will be supplied by the project to re-seed the range land (see Appendix 3).

V.5. ***Rehabilitating and Building of Infrastructure and Equipment.*** The infrastructure that was created in the four districts of the project area will be identified wherever located. It will be assessed to determine its condition and operational status. Depending on what the evaluation and assessment report outcome will be, action to restore the condition by upgrading or complete replacement will be undertaken. The specific infrastructures, facilities, equipment and machinery will be itemised during implementation.

V.6. ***Livestock Improvement.*** The output of livestock is not enough to make a significant contribution that can provide food security and reduce poverty. One of the major reasons is that the condition and genetic quality of livestock is very poor. This project among other things will attempt to improve that condition and genetic quality. The project will buy 165 merino rams which will be sold to identified farmers or farmers associations as the case may be. The same will happen to the 66 angora bucks that will be bought by the project. The purpose of these quality breeds is to improve the production of wool and mohair so that each merino sheep is able to produce at least 0.3 kg of wool while each angora goat would produce 0.2 kg of mohair. The second part of improving livestock is by selecting good stock from not so good and culling all stock that is not so good. The ASS has recommended 5 percent culling of all livestock in the country and the project area livestock will also be culled at 5 percent. Hence, 18,402 cattle, 18,435 sheep and 18,135 goats will be culled to reduce stock holding in the range. The farmers who culled their stock will be required to replace 2 animals for every 10 culled. This means that the project will buy 3,680 cattle, 3,687 and 3,627 goats to replace the culled stock. The replacement stock will be of good quality to enable improvement process of the livestock (for full detail see Appendix 3).

V.7. Government of Lesotho is encouraging farmers and interested people in farming enterprises to grow fodder in large quantities in order to conserve it for livestock as supplement to what the pastures provide. Commercial farmers on the other hand some of whom would practice zero grazing to ensure monitoring of their livestock nutrition, will need a lot of fodder. For this reason a policy to introduce subsidies and incentives to fodder growers is being implemented. 4,662 ha of land will be used and the costs will be covered by the project only in the first year, whilst the farmer will be expected to continue the production for 5 years (see *Crop Production Programme*).

V.8. ***Intensive Livestock Production.*** The intensive livestock comprises of dairy cattle, milk goats, beef cattle, broilers, layers, piggery, fish and ducks. Intensive livestock farmers will be financed to undertake one of the intensive livestock group and it will be expected that this will be done through the credit scheme. Farmers' contribution will be 20 percent while the project will finance the farmer with 80 percent in the form of repayable loan. A target of about 1,200 farmers will pilot this

programme over the 5 year period. An estimate of US\$12.14 million will be allocated to creating the loan fund for intensive livestock farmers (see Appendix 2).

V.9. *Support Activities:*

- *Up-scaling of Animal Registration and Marking Project.* The DLS is currently implementing a programme to combat livestock theft by developing a database for the registration and marking of livestock. The process is continuing, but its magnitude is such that there are a lot of areas that will not be covered due to financial resource limitations. The second problem is lack of adequate capacity to implement the programme across the country. The progress on the registration and marking of the livestock shows that M26 million or US\$3.7m worth of work still remains.
- *Research and Development.* One major constraint identified in the sub-sector is marketing and marketing infrastructure. Economic growth of any sector is measured by the effectiveness of its marketing strategy. The major problem experienced by Lesotho farmers whether they be extensive farmers or commercial farmers, is finding a market for their products. When the market is found, the infrastructure does not permit access to that market. This initiative is aimed at conducting feasibility studies as to the marketability potential of livestock outputs especially non tradition livestock products and find the markets to identify local and export markets for the products. The study is also expected to develop and improve local brand by exploring viable and economic production strategies.
- *Training and Extension Services.* The *Department of Field Services* has an extension arm called the *Unified Extension Services* (UES). The UES has an operational infrastructure designed in such a manner that it is able to access and provide service to all communities around the *Agricultural Resource Centres* (ARCs) created at strategic areas in the country. Even in this project area, there are several ARCs to service the affected farming communities. The project will provide operational funds to enable the extension team to provide the necessary service. The funds will pay for travelling and transport of extension staff, their accommodation and per diem where they have to travel to assist farmers in their operational areas.

Component 2: Animal Health

V.10. The importance of animal health in improving the quality output of livestock contribution towards food security and poverty reduction cannot be underestimated. The many activities mentioned in the project programme above are directly linked to animal health. This section deals specifically with sustaining the life of an animal by providing medication, treatment and care so that the animal can perform its functions. A sick herd or flock will lose its economic value in that its life continuity is at stake. Over and above the activities found in Component 1, there are similar cases here but with addition in that the section provides a service to stimulate the animal to perform. The services that the project will fund are the following:

V.11. ***Providing Infrastructure and Facilities.*** In the same manner as was done in Component 1, the project will provide funds to build new infrastructure, rehabilitate, upgrade and repair existing ones in the project area. An identification of location and condition will be made, followed by a recommendation of action to be taken thereof. The infrastructure, facilities and equipment referred to here relate to veterinary oriented infrastructure like the veterinary clinics and facilities for housing animals when brought for veterinary attention.

V.12. ***Support Activities:***

- ***Veterinary Services.*** Animal health is primarily concerned with the supply of veterinary drugs and vaccines to ensure that distribution and supply reaches all farming communities on time. The Department of Animal health is in the process of finalising legislation on privatisation policy for services that were done by government in preparation for hand over to the private sector. However, the services that will need project funding for implementation include the procurement of drugs and vaccines. The quantities and volumes will be reviewed and aligned to the area requirements later.
- ***Extension Services.*** In the same manner as it happened in component 1, the project will provide funds to enable extension personnel to carry out various activities relating to animal health care. They will support the transportation costs, accommodation and per diem of extension workers.
- ***Administration.*** The project will also support the procurement and printing of stationery and administrative costs that go along with the implementation of the project.

Project Co-ordination

V.13. ***Monitoring and Evaluation.*** It is expected that during implementation of the project, there will be need to ensure alignment and compliance to the work plan designed to drive this project initiative. For this reason it is necessary to provide for checks and balances to ensure smooth implementation or immediate identification of weaknesses and errors so that corrective action is done fast. The project will therefore design a monitoring and evaluation programme with specific milestones to check on the implementation plan. There will be a continuous monitoring and evaluation, but again at the end of the project there will be the project end evaluation. Funds will be provided by the project to ensure that this process is well carried out.

V.14. ***Project Auditing.*** This project is implemented on budget allocations and this involves financial transactions. It is important to determine whether the funds have been used effectively, economically and all. This is a process that tells the project stakeholders but more importantly the financiers that the capacity and capability created in the project was worth financing. This will show how the funds have been received and disbursed to achieve the said objectives. An external auditor will be deployed to do this job and paid for by the project.

VI. ESTIMATED PROJECT COSTS

Preliminary Project Cost Estimate					
Component/Activity	Local Currency	Foreign Currency	Total	% Foreign Currency	% of Total Base Cost
1. Animal Production					
Range Management	344,472	834,000	1,178,472	70.8%	0.9%
Infrastructure (*)	–	–	–	–	–
Livestock Improvement	–	8,591,700	8,591,700	100.0%	6.8%
Intensive Livestock Production	33,985,400	50,978,100	84,963,500	60.0%	67.0%
Support Activities	18,050,000	10,400,000	28,450,000	36.6%	22.4%
Sub-total Component 1	52,379,872	70,803,800	123,183,672	57.5%	97.2%
2. Animal Health					
Infrastructure (*)	–	–	–	–	–
Support Activities	1,715,000	1,017,378	2,732,378	37.2%	2.2%
Sub-total Component 2	1,715,000	1,017,378	2,732,378	37.2%	2.2%
Project Co-ordination					
Monitoring and Evaluation	750,000	–	750,000	0.0%	0.6%
Auditing	75,000	–	75,000	0.0%	0.1%
Sub-total Project Co-ordination	825,000	–	825,000	0.0%	0.7%
Total Baseline Costs	54,919,872	71,821,178	126,741,050		100.0%
Physical Contingencies (10%)	5,491,987	7,182,118	12,674,105		10.0%
Price Contingencies (7.5%)	4,118,990	5,386,588	9,505,579	56.7%	7.5%
Total Project Cost (Maloti)	64,530,849	84,389,884	148,920,734		117.5%
Total Project Cost (US\$)	9,218,693	12,055,698	21,274,391		
(*) To be assessed at a later stage. Exchange rate: 1 US\$ = 7 Lesotho Maloti.					

VII. PROPOSED SOURCES OF FINANCING

VII.1. The information sheet at the front of this report shows the indicative sources of finance. However the specific donors have not yet been identified who are interested in financing the project or aspects of interest within the project. The Government of Lesotho will contribute the required 10 percent of the project. The contribution will be in the form of overhead programme costs of staff and facilities used in implementing the project.

VII.2. The success of this project will depend on the participation of the direct beneficiaries who are the farming communities. The farmers will therefore contribute their labour and other resources to ensure the project is a success. Government of Lesotho is planning to privatise some services and facilities to be taken over by the private sector. This privatisation will finance this project in part.

VII.3. External finance will be required to support most of the project including a major part which will form the credit scheme available for on-lending to individual members of the farming community especially the commercial farmers.

VIII. PROJECT BENEFITS

VIII.1. Range management remains the key factor to livestock farming in this country. While Lesotho complains of limited arable land, it can boast of good range land only if good range management and appropriate stocking rates are maintained by livestock farmers. This project will assist extensive livestock farmers to improve the pastures by re-seeding the grazing areas to restore the degraded grass and natural vegetation. This will improve the nutrition of the livestock and consequently improve its productivity.

VIII.2. The project is expected to encourage farmers to cull their livestock at the rate of 5 percent. In an effort to motivate farmers to cull their stock, for every 10 animals culled the project will provide loan credit for the replacement of 2 or 20 percent. The project will also import the merino rams and angora goats to improve the genetic quality of livestock. This will not only improve the quality of livestock but will improve the competitiveness of wool and mohair production in the market. The fibre quality of Lesotho mohair and wool was once regarded one of the best in the world market, but was gradually decreasing in quality.

VIII.3. Many commercial farmers have wished to diversify their livestock production but have been constrained by lack of finance. This project will provide credit on a demand led basis to those farmers willing to diversify into commercial livestock. There are prospects that fish and ducks that are not so familiar livestock in this country have a good export market. Government is promoting farming in these lines and interested farmers could benefit and be the pioneers of this market. The appropriate credit scheme designed for farmers that will be part of the overall NEPAD/CAADP Investment Programme, will afford interested farmers the opportunity to diversify livestock farming (Appendix 2).

IX. IMPLEMENTATION ARRANGEMENTS

IX.1. MAFS through the DLS working together with *Department of Field Services* will be responsible for the implementation of this project. MAFS will establish a co-ordinating unit that will project manage the project activities to ensure that implementation is in accordance with the proposed plan and structure.

IX.2. An appropriate organisational structure will be established within the DLS adequately manned and equipped with resources necessary to implement the project. The extension team through the UES will be meeting with farmer communities to mobilise and sensitise them about the project to identify participants. As indicated that the success of this project lies in the participation and involvement by the farming community, the extension team will work hard to promote that participation and involvement. The next step will be to identify those members of the farming community that will participate in the project and prepare them to know their roles and responsibilities.

IX.3. Through the assistance of the UES team, farmers will identify among their herds and flocks those animals that should be culled. Training workshops will be held to demonstrate how to identify not so good livestock to be culled. Once farmers have been trained, the process of culling will be carried out still with the assistance of the extension team. Then arrangements will be made with the UES team to import the replacement livestock to be handed over to farmers. The extension team will also assist farmers and farmers’ associations to import the Marino rams and Angora goats to come and improve the genetic quality of their livestock.

IX.4. The farmers and the farming community will also be organised to undertake the range management activity of re-seeding the grazing land. Prior mobilisation and sensitisation will be done by the extension team which will involve identification of the degraded areas which should cover an area of 1,112 ha in all. Once this has been done, preparations to procure appropriate grass seed will be made through participation and involvement of the farming community. A clear programme to re-seed the area will be made and implemented. In the same manner, the infrastructure and facilities will be examined and evaluated with the assistance of experts in the fields. A report describing the condition and status of the infrastructure and facilities will be provided upon which action for new construction, rehabilitation or upgrading will follow.

IX.5. A brief description of these arrangements should cover the identification, role and general responsibilities of the executing agency as well as of the main stakeholders in the project, of course, the beneficiaries themselves.

X. TECHNICAL ASSISTANCE (TA) REQUIREMENTS

X.1. The specific inputs regarding external Technical Assistance have not yet been identified at this stage of the project, however with the refinement process it will become clear what areas need attention. The technical areas dealing with improvement of technology for example (in classing the wool and mohair at the wool sheds), and in the areas of animal health may need external TA. These may include areas like environmental assessment regarding stocking rates or animal health as the case may be, specific areas of concern will be evaluated when an implementation plan is designed.

X.2. The DLS together with the project co-ordinator will identify areas that require technical assistance. On a need basis, internal or external consultants will be recruited to perform special services to support the implementation of the project programme.

X.3. It is worth mentioning that while improvement of stock quality is important, basic management principles are necessary to improve farmers' capabilities to become organised. For this reason, TA in entrepreneurial and management skills and competencies are very important.

X.4. Very little attention has been given to training the herd boys who spend most of their time with livestock on behalf of their masters. Special training programmes will be designed for the herd boys on a number of issues including training them on HIV/AIDS awareness.

XI. ISSUES AND PROPOSED ACTIONS

XI.1. There is still a lot of work outstanding for the development of this project. The project participants have not yet been identified including the communities that will fall within the project area. Government of Lesotho has committed itself to revising policies to enable effecting some activities e.g. anti theft practices. The *Anti Theft Act* is still under revision and hopefully will be complete soon. The privatisation policy on the identified public livestock services and facilities has not yet been complete. A suitable credit scheme has not yet been established from which farmers will source finance to support their individual projects.

XI.2. The livestock infrastructure and facilities to be improved, constructed or upgraded have not yet been identified and evaluated. It is believed that these processes will begin as soon as possible to allow the project planning to take shape.

XI.3. The detailed plans for project implementation regarding allocation of roles and responsibilities to different stakeholders participating in the project will be addressed. At that stage, specific actions and those responsible for implementing them will be identified.

XII. POSSIBLE RISKS

XII.1. It has been indicated throughout this project that the farming community who are the direct beneficiaries, play the key role to the success of this project. Their willingness to participate and be involved is paramount and could be a risk if they decide not to comply.

XII.2. ***Willingness to participate:*** There is no guarantee that the potential beneficiaries will be willing to participate in the project. The project will introduce practices that are not familiar to farmers including culling of their valuable stock especially cattle. This may cause certain reluctance and resistance that will need intense mobilisation and sensitisation by the extension team.

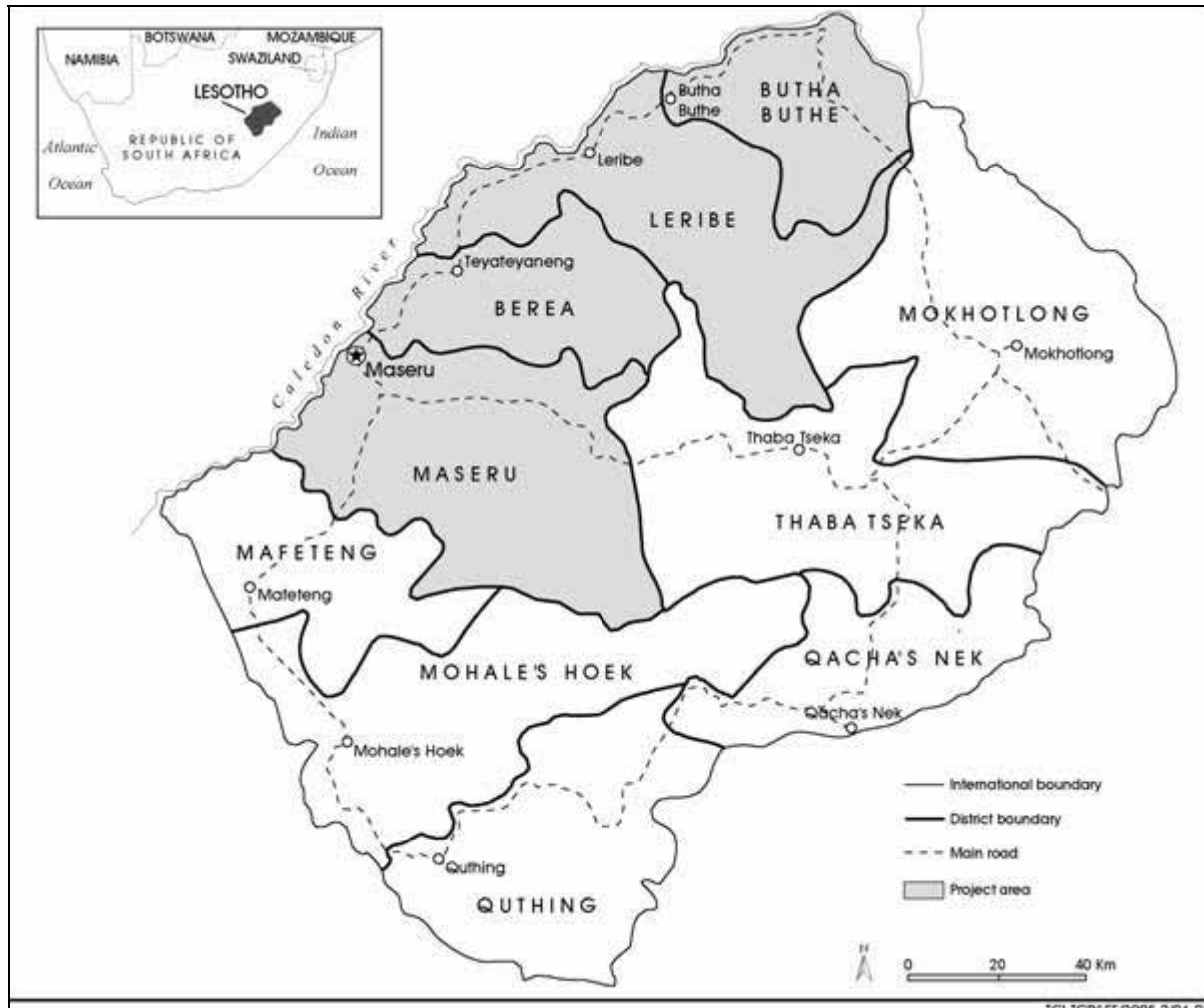
XII.3. ***Donor finance:*** It is expected that donors will be interested in financing this project but that expectation is not certain and cannot be guaranteed. In the event the expected sources of finance do not materialise, the project will be a non-starter.

XII.4. ***Development of suitable credit scheme:*** One of the key components of this project is commercialisation of livestock. The process of commercialisation is dependant on the availability of loans to individual farmers to finance their commercial projects. A suitable credit scheme nor the Fund to accommodate the money for the scheme has not yet been established.

XII.5. ***Privatisation of public livestock services and facilities:*** Government has promised to privatise certain livestock services and facilities with the objective of improving the services. Government has realised that it does not have enough capacity and gives the private sector the opportunity of providing the livestock services while it concentrates on policy management and control functions. Successful implementation of the privatisation process is very important in determining the success of this project and can therefore be a risk.

XII.6. ***Livestock theft:*** Livestock theft has always been a major concern to livestock farmers. Enforcement of the *Anti Theft Act* is mandatory for the livestock farmers. Theft poses a major risk if not quelled through enforcement of the law.

Appendix 1: Map of Lesotho Showing Project Districts



Appendix 2: Livestock Production Cost Estimates

Description	Broilers	Layers	Dairy
Capital Costs:	71,640	77,550	235,000
Housing	30,000	25,200	65,000
Dairy Animals			160,000
Equipment	15,930	52,350	10,000
Operating Costs:	21,060	45,700	226,900
Animal Stock (1,000 birds)	4,650	10,500	–
Feed	11,610	30,000	201,300
Labour (M400 p/m)	3,200	3,200	3,200
Other	1,600	2,000	22,400
Total Base Cost	92,700	123,250	461,900
Contingency 2%	1,340	2,465	–
Total Cost (Maloti)	94,040	125,715	461,900
Economic Viability			
Income from Sale	114,000	140,440	549,000
Operating Costs	21,060	45,700	226,900
Profit	92,940	94,740	322,100

Notes:

1. For dairy enterprise, standard recommended number is 20 cows, below which it is unprofitable.
2. It is recommended that for dairy, the farmer should grow fodder to reduce feeding expenses.
3. The average investment cost of all the three enterprises determines the minimum investment for a commercial farmer in livestock, which is approx. M170,000.
4. The target number of intensive farmers to pilot the programme is 500.
5. Investment capital budget required to build the credit scheme fund for intensive livestock farmers is therefore = 169,927 x 500 intensive livestock farmers, or M4,97 million.

Recommended Funding Ratio:	Maloti	US\$
Loan 80%	67,970,800	9,710,114
Own Contribution 20%	16,992,700	2,427,529
Total	84,963,500	12,137,643
Individual Investment:		
Loan 80%	135,942	19,420
Own Contribution 20%	33,985	4,855
Total	169,927	24,275
Exchange rate 1 US\$ = 7 Maloti		

Appendix 3: Livestock Population Analysis and Budget Calculations

	Extensive Livestock Farming			Intensive Livestock Farming @ 42% of National Population							Fish	Ducks
	Cattle 50%	Sheep 33%	Goats 44%	Dairy	Milk Goats	Beef	Mutton	Broilers	Layers	Piggery		
Botha Bothe	47,134	56,907	76,200	338								
Leribe	97,000	57,000	92,500	338								
Berea	96,300	63,800	58,000	338								
Maseru	127,600	191,000	136,000	2,700								
Totals	368,034	368,707	362,700	3,714		6,578	33,449	2,310,000	224,400	43,200	9,000	6,000
National Population Projections	732,403	1,102,751	832,462	4,725		10,964	55,749	3,850,000	374,000	72,000	15,000	10,000
Livestock Improvement												
Culling @ 5% of Livestock Population	18,402	18,435	18,135									
Replacement @ 20% of Culled Stock	3,680	3,687	3,627									
Merino Rams and Angora Bucks		165	66									

Assumptions:

- 40% of total area is rangeland (1,111,805 x 40%) = 444,722 ha.
- 0.25% of rangeland needs re-seeding (444,722 x 0.25%) = 1 112 ha.
- Of the projected 500 merino rams and 150 angora bucks for the country, 33% and 44% are allocated for the project farmers.

- Culling will be done at 5% and replacement at the rate of 20% of culled stock.
- Livestock populations for intensive farmers are calculated at the rate of 42% of total national projections.
- Training & Extension services (42% of the national budget).
- Vaccines and drugs (42% of the national budget).

Costs Calculations			
Component 1: Animal Production	Maloti	1.4 Programme Support:	
1.1 Range management:			
1.1.1 Cost of seed (1,112 ha x 15 kg/ha @ M50.00 p/kg)	834,000	1.4.1 Research and Development	200,000
1.1.2 Cost of labour (1,112 x M31.00 @ M31.00 per man-day per ha)	344,472	1.4.2 Animal Registration	26,000,000
	1,178,472	1.4.2 Technical Assistance	750,000
		1.4.3 Training & Extension	1,500,000
			28,450,000
1.2 Infrastructure and Facilities:			
1.2.1 Wool sheds (see Support Services Programme)		Component 2: Animal Health:	
1.2.2 Equipment (see Support Services Programme)		2.1 Programme Support:	
		2.1.1 Vaccines and Drugs	3,100,000
1.3 Livestock Improvement:			
1.3.1 Procurement of merino rams (165 @ M5,000)	825,000	2.2 Infrastructure and Facilities:	
1.3.2 Procurement of angora bucks (66 @ M900)	9,400	2.2.1 Veterinary Clinic and Equipment (see Support Services Programme)	
1.3.3 Replacement of culled cattle (3,680 @ M1,200)	4,416,000	Component 3: Project Coordination	
1.3.4 Replacement of culled sheep (3,687 @ M450)	1,659,150	3.1 Monitoring and Evaluation	750,000
1.3.5 Replacement of culled goats (3,627 @ M450)	1,632,150	3.2 Project Auditing	75,000
	8,591,700		825,000

Appendix 4: Animal Production Component Logframe

Narrative Summary	Verifiable Indicators	Means of Verification	Key Assumption
GOAL: <ul style="list-style-type: none"> To increase livestock production by 10% each year for 5 years. 	<ul style="list-style-type: none"> Increasing number of improved livestock populations. 	<ul style="list-style-type: none"> Livestock farmers’ herds and flocks. UES monitoring reports. Annual agriculture reports District reports 	<ul style="list-style-type: none"> Successful implementation of ASS
1. OBJECTIVE:			
1.1 To encourage intensive livestock production in the lowlands	<ul style="list-style-type: none"> Increased number of intensive livestock farmers. Increased number of farmers engaged in fodder growing. 	<ul style="list-style-type: none"> Intensive livestock farms. Fodder fields. Report files. 	<ul style="list-style-type: none"> UES is effective in its extension services. Willingness of farmers to be mobilised. Availability of Funds for a suitable credit scheme.
1.2 To reduce stock theft	<ul style="list-style-type: none"> Reduction of reported cases of stock theft. 	<ul style="list-style-type: none"> UES monitoring reports Livestock farmers 	<ul style="list-style-type: none"> Policies and laws will be effective and enforced.
1.3 To improve quality of extensive livestock in the Mountains and Foothills	<ul style="list-style-type: none"> Increased number of improved livestock populations. Established grazing controls in operation. Sustainable stocking rates established through culling. 	<ul style="list-style-type: none"> Range land area Grazing policy reports UES monitoring reports Farmers reports. 	<ul style="list-style-type: none"> Farmers willing to accept and go by the recommended strategies of improvement. Availability of funds to improve quality.
1.4 To improve animal husbandry.	<ul style="list-style-type: none"> Improved livestock produced in all categories. Disease free and healthy livestock produced. 	<ul style="list-style-type: none"> Grazing policy reports UES monitoring reports Farmers reports 	<ul style="list-style-type: none"> Farmers willing to accept and go by the recommended strategies of improvement. Availability of funds to improve quality
1.5 To improve the genetic characteristics of livestock.	<ul style="list-style-type: none"> Use of quality breeds e.g. merino rams and angora bucks 	<ul style="list-style-type: none"> UES monitoring reports Farmers reports 	<ul style="list-style-type: none"> availability of funds to procure pure and recommended breeds
1.6 To Promote commercial livestock production.	<ul style="list-style-type: none"> Increasing number of commercial livestock farmers. Growing market demand for livestock products. 	<ul style="list-style-type: none"> Market centres UES reports Farmers reports 	<ul style="list-style-type: none"> Availability of funds and appropriate credit schemes for farmers for demand led on lending.
1.7 To expand use of animal products in other sectors.	<ul style="list-style-type: none"> Increase of livestock agro industries Increase of entrepreneurs in animal products. 	<ul style="list-style-type: none"> Agro industries. Exhibitions, shows and trade fares. Farmers’ reports. 	<ul style="list-style-type: none"> Availability of funds and appropriate credit schemes for farmers for demand led on lending.
2. OUTPUT			
<ul style="list-style-type: none"> Development of regulations to encourage feedlot practices. Improvement of fodder production. 	<ul style="list-style-type: none"> Existence of the feedlot regulation. Increasing number of farmers switching to growing fodder to replace traditional staple food crops. Number of hectares allocated to fodder production 	<ul style="list-style-type: none"> Policy document/ gazette UES monitoring reports Visit to farms and fields Agricultural information newspapers. 	<ul style="list-style-type: none"> Expertise to draft appropriate and effective regulation. Willingness of farmers to switch to fodder production Availability of appropriate credit scheme for on lending on demand led basis.

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Narrative Summary	Verifiable Indicators	Means of Verification	Key Assumption
<ul style="list-style-type: none"> Registration and marking of livestock Database development in accordance with Stock Theft Act. Establishment of anti theft associations. 	<ul style="list-style-type: none"> Marked and registered livestock. Number of active and effective anti theft associations. Record of livestock in the database to enable tracing of lost stocks. 	<ul style="list-style-type: none"> Livestock registers UES monitoring reports Visit to ranges and farms. Agricultural Information newspapers. 	<ul style="list-style-type: none"> Availability of funds for registration and marking of livestock. Willingness of farmers and communities to participate in combating stock theft. Enforcement of the Stock Theft Act.
<ul style="list-style-type: none"> Controlled grazing of livestock. Sustainable stocking rates established. Development of livestock production in areas appropriate to land use. 	<ul style="list-style-type: none"> Established grazing fees Existence of good range management practices. Decrease of livestock in field crop areas. Increased number of culled livestock. 	<ul style="list-style-type: none"> Range areas UES monitoring reports Agricultural Information newspapers. 	<ul style="list-style-type: none"> Willingness of farmers to cull their livestock. Availability of funds for creation of range management infrastructure and facilities.
<ul style="list-style-type: none"> Quality of general animal husbandry improved in all animal groups i.e. cattle, sheep, goats, poultry, equines, fish duck 	<ul style="list-style-type: none"> Existence of quality animals. Number of workshops held for livestock farmers in animal husbandry. 	<ul style="list-style-type: none"> UES monitoring reports Agriculture Information journals Farms and ranges. 	<ul style="list-style-type: none"> Willingness of farmers to cull their livestock. Availability of funds for creation of range management infrastructure and facilities
<ul style="list-style-type: none"> Genetic quality of animals improved. Local breeding practices improved. 	<ul style="list-style-type: none"> Ranges and farms filled with merino sheep, angora goats, and exotic breeds for beef and dairy. Existence of quality livestock. 	<ul style="list-style-type: none"> UES monitoring reports Agriculture Information journals Farms and ranges 	<ul style="list-style-type: none"> Availability of appropriate credit scheme for on lending on demand led basis. Effective training and capacity building by UES.
<ul style="list-style-type: none"> Improvement of marketing practices for domestic and export markets. 	<ul style="list-style-type: none"> Number of farmers in commercial livestock farming. Increasing market demand for livestock in various animal groups. 	<ul style="list-style-type: none"> UES monitoring reports Market place Farmers farms Agricultural journals and newspapers. 	<ul style="list-style-type: none"> Willingness of farmers to practice commercial farming, to cull their livestock and attend training workshops. Availability of appropriate credit scheme for on lending on demand led basis.
<ul style="list-style-type: none"> Expanding proper preparation and curing of skins and hides. Expanding the potential to expedite tourist market e.g. stocking streams for fishing, promoting pony trekking. 	<ul style="list-style-type: none"> Development and increase of agro industry enterprises. Leather tanning, skins and hides trading, Wool and mohair scouring Gas manufacturing from pig dung. 	<ul style="list-style-type: none"> Existence of agro industry enterprises. Farmers' periodic reports. 	<ul style="list-style-type: none"> Availability of appropriate credit scheme for on lending on demand led basis.
<ul style="list-style-type: none"> Expand studies on the potential for non traditional animals e.g. fish and ducks. 	<ul style="list-style-type: none"> Appropriate infrastructure e.g. fish and ducks ponds and dams. Number of farmers interested. Research report showing study results. 	<ul style="list-style-type: none"> Farmers' periodic reports. 	<ul style="list-style-type: none"> Availability of appropriate credit scheme for on lending on demand led basis.
<ul style="list-style-type: none"> To promote commercialisation of livestock farming. 	<ul style="list-style-type: none"> Increased number of farmers engaged in commercial livestock farming. 	<ul style="list-style-type: none"> Annual and periodic records, reports and files. 	<ul style="list-style-type: none"> Availability of funds Willingness of farmers to participate.
3 ACTIVITIES:	INPUTS		
<ul style="list-style-type: none"> Mobilisation of farmers Training and capacity building. Culling of livestock. Replacement of culled stock. Production of fodder Development of database Rehab. of facilities and creation of infrastr. 	<ul style="list-style-type: none"> Transport Training materials. Finance Manpower Equipment Machinery. 		